Violet-green Swallow

Family: Hirundinidae Species name: Tachycineta thalassina

Habitat: Ponderosa Pine forests and Pinyon and Juniper woodlands

Diet: Insectivore; eats flying insects, forage in large flocks catching insects in

flight

Predators: Snakes, squirrels and some birds of prey

Fun Facts:

Nest in tree or cliff crevices in colonies

- Have been observed assisting Western Bluebirds in raising young
- Swallows guard nest and tend to bluebird nestlings, after bluebirds fledge (fly away) the swallows use the nest site for their young
- Get name from its green back and violet tail
- Migrates in winter down to Mexico southward to Nicaragua

Gray Fox

Family: Canidae Species name: Urocyon cinereoargenteus

Habitat: Found from the forest to the desert on both the North and South Rims

Diet: *Omnivore;* eats small mammals such as rabbits, wild birds, lizards, snakes, frogs, berries, seeds and nuts

Predators: Occasionally bobcats; young fox may be hunted by owls, hawks, or coyotes

- Only member of the dog family that can climb trees
- Strong, hooked claws allow them to scramble up trees to escape predators or to get food
- Mark territory regularly with urine and fecal deposits
- Mate for life, with the male taking an active role in raising young
- Female gives birth to 4-10 young, called kits, in an underground den which was dug by another creature





Ringtail

Family: Procyonidae Species name: Bassariscus astutus

Habitat: Found from the desert in rocky, riparian (water) environments to the Pinyon and Juniper woodlands on the rim

Diet: Omnivore; eats small mammals & birds, lizards, insects, seeds, nuts, & fruits

Predators: Great horned owl and other nocturnal birds of prey, bobcats

Fun Facts:

- Nocturnal (hunts at night), solitary, timid and rarely seen
- The ankle joint is flexible and able to rotate over 180 degrees, a trait that makes it a great climber
- Dramatic beautiful banded tail provides balance on narrow ledges and limbs, even allowing them to reverse directions by performing a cartwheel
- Like a weasel it will secrete a foul-smelling liquid in defense
- Nests in the hollows of trees or abandoned wooden structures
- The state mammal of Arizona!

Beaver

Family: Rodentia Species name: Castor canadensis

Habitat: Along the Colorado River and nearby Riparian (water) areas

Diet: *Herbivore;* feeds on inner bark, leaves and small twigs of trees, some grasses and ferns

Predators: Human hunters (trappers); coyote, hawk, and owls will occasionally eat young kits

- Front teeth (incisors) never stop growing
- Have scent glands that contain liquids sometimes used to make perfumes
- · Have special flaps on mouth, ears, and nostrils to keep water out while swimming
- Beaver pelts (skins) were very valuable in the 1800s and widespread trapping caused many beaver populations to shrink dramatically
- Second-largest rodent in the world (after the capybara)





Red-Tailed Hawk

Family: Accipitridae Species name: Buteo jamaicensis

Habitat: Found throughout Grand Canyon in almost all open environments

Diet: Carnivore; rodents and other small mammals, birds and reptiles

Predators: Main threat is humans, collisions with power lines and automobiles, occasionally raccoon or fox can get to a nest before the young have learned to fly

Fun Facts:

- Its memorable call kree-eee-ar, is used in movies like old westerns to represent the inspiring call of an eagle (eagle call isn't as glamorous and didn't make the cut)
- Most abundant and adaptable hawk in the U.S., lives in almost every environment
- Its feathers are considered sacred by some tribes, and are used in religious ceremonies
- Hunts from a high perch searching for prey, it can see a rabbit from a half mile away
- Natural pest control, keeps rodents and other pest populations in check

Short-horned Lizard

Family: Phrynosoma Species name: Phrynosoma douglassii

Habitat: Found throughout desert and forest environments at Grand Canyon

Diet: Carnivore; ants, beetles, and other insects

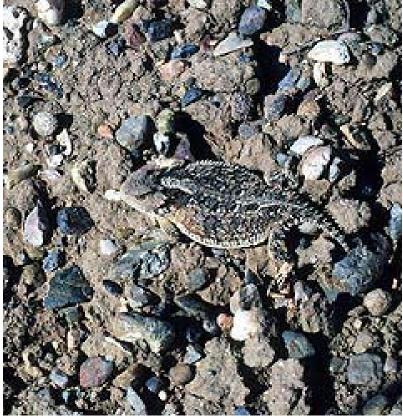
Predators: Birds, snakes, other lizards, coyote, fox, feral (wild) dogs and cats

- · Color of skin works as excellent camouflage
- Shoots blood-like liquid out of its eyes 2-3 ft to defend itself
- Can inflate their bodies which, combined with the spines covering their bodies, makes them impossible for predators to swallow
- "Sit-and-wait" predators; often sitting near ant nests or trails
- Cold tolerant and can live at elevations as high as 9,000 ft









Desert Tortoise

Family: Testudinidae Species name: Gopherus agassizii

Habitat: Found within the Mojave and Sonoran Deserts at the lowest elevations in Grand Canyon.

Diet: Herbivore; eats wildflowers, grasses, shrubs, new cacti growth & their flowers

Predators: Ravens, Gila monsters, foxes, badgers, roadrunners and coyotes prey on juveniles

Fun Facts:

- Able to live where ground temperatures are higher than 140 degrees Fahrenheit because of its ability to dig underground burrows and escape the heat
- At least 95% of its life is spent in burrows
- Adults can survive for over one year without water
- Rarely move more than 2 miles from the nest they were born
- They are highly endangered, and it is illegal to touch, harm, harass, or collect them

Striped Skunk

Family: Mephitidae Species name: Memphitis memphitis

Habitat: Can be found from the wide open plains to dense forest

Diet: *Omnivore;* eats insects, small birds and mammals; may nibble on some seeds/nuts and berries

Predators: Great horned owls and other nocturnal birds of prey, coyotes

- Primarily active at night (nocturnal)
- The two large white stripes running down the back of this animal give it its name
- The scent glands are specialized/highly developed in skunks and are used to spray foul-smelling fluid in defense
- Even though many think skunks stink, the fluid is sometimes used as a perfume base because of its clinging qualities





Pallid Bat

Family: Antrozoidae Species name: Antrozous pallidus

Habitat: Found many places, like canyons, cliffs, along waterways and in forests;

sleeping in caves, mine shafts and tree hollows

Diet: *Insectivore*; eats a wide variety of insects, such as crickets and scorpions

Predators: Peregrine falcons, owls

Fun Facts:

Bats are the only true flying mammal (flying squirrels glide)

- Often there are between twenty and several hundred individuals that roost together in colonies
- Females give birth to twins during early June
- They normally catch their prey on the ground, returning to their roost to eat
- Their large ears allow them to hear footsteps of insects on the ground & use their voices to make ultrasonic (high pitched) sounds that bounce back to their ears

Stink Bug

Family: Tenebrionidae Species name: Eleodes spp. (there are many species)

Habitat: Found many places like meadows, gardens and deserts

Diet: Herbivore or Insectivore; most are considered decomposers because they scavenge instead of hunt for their food. Some species eat decaying leaves, sticks and grasses and others feed on dead insects, feces (poop) and stored grains

Predators: birds, rodents, spiders, and lizards

- These beetles are sometimes called darkling beetles, stinkbugs, clown beetles, or pinacate beetles
- Beetles have the habit of doing a headstand when feeling threatened- this is a warning to others and can save them the energy of spraying for defense
- There are about 1,400 different species in North America
- Have elytra (modified hard wings, not designed for flying) that protect their





Stellars Jay

Family: Corvidae Species name: Cyanocitta stellari

Habitat: Found in pine forests and open woodlands

Diet: Omnivore; eats insects and small vertebrates, acorns, nuts, fruits

Predators: Great horned owl

Fun Facts:

Use mud to help build nest

Stellars Jays will sometimes mate with blue jays, producing hybrid offspring

· Hide extra food in trees or by burying it underground

California Condor

Family: Cathartidae Species Name: Gymnogyps califonianus

Habitat: open areas of deserts and forests in canyon country

Diet: Scavenger; eats only carrion (animal remains)

Predators: none really; 3 main threats are humans, coyotes, and golden eagles

- Largest free-flying land bird in North America; has a wingspan of 9.5 feet
- Very social and nurturing
- Endangered species
- Reintroduction program has helped protect other endangered species





Raven

Family: Corvidae Species Name: Corvus corax

Habitat: Found throughout Grand Canyon from the lowest elevations in the desert, to the highest mountains and plateaus on the rim

Diet: *Omnivore* and *scavenger*; Ravens are incredibly opportunistic in finding food to eat, from pinyon pine nuts, juniper berries, insects, small animals, food waste and carrion (dead animals)

Predators: Rarely hunted by bobcats and ringtails

Fun Facts:

- In the Corvidae family of birds, known for their intelligence and adaptability
- Remarkable feats of problem solving have been observed, leading to the belief that they are highly intelligent
- Ravens are known to go for softer tissues, like eyes, first to get to the meat of an animal (This animal must be dead, don't worry)
- Ravens do humans a favor by eating a number of undesirable insects

Western Bluebird

Family: Turdidae Species Name: Sialia Mexicana

Habitat: Frequents forest and woodland eco-zones, prefers open forests

Diet: *Omnivore;* wait on a perch and fly down to catch insects, sometimes catching them in midair, mainly eat insects and berries

Predators: Birds of prey (i.e. Sharp-Shinned Hawk, Cooper's Hawk, Goshawk)

- Vivid and brightly colored
- Nests in holes more often than nests
- Because of high competition Tree Swallows often attack western bluebirds for their nests
- A secondary cavity nester: meaning they use a nest that was excavated by another bird in a previous season, typically old woodpecker cavities
- Helped by birds far beyond their family members. Violet-green Swallows have been observed feeding and defending nests of Western Bluebirds







Desert Tarantula

Family: Theraphosidae Species Name: Aphonopelma chalcodes

Habitat: mostly found in the desert, sometimes in the forest

Diet: Carnivore; insects, lizards, tiny mammals

Predators: lizards, snakes, tarantula hawks (wasps)

Fun Facts:

Tarantulas are the largest members of the spider family

- Males seasonally go on a quest, venturing all around to find females waiting for them in their burrows
- Tarantula bites are mild and their venom is weak; hair-like bristles on their abdomen detach and are irritating to those with whom they come in contact

Tarantula Hawk (Wasp)

Family: Pompilidae Species Name: Pepsis formosa & Pepsis thisbe

Habitat: desert and forest

Diet: mainly *Herbivore;* sometimes called "nectivorous" because they prefer the nectar and fruit of plants. Only the females and larva feed on tarantulas

Predators: roadrunners and other birds

- Up to two inches long with blue-black bodies and bright rust-colored wings, they are among the largest of wasps
- The bright color of their wings is to warn potential predators that they are dangerous
- Females hunt for tarantulas, stinging and paralyzing them to lay eggs on the spider. When the eggs hatch, the larva will feed on the tarantula, even though it is still alive
- The sting of a tarantula hawk is one of the most painful insect stings





Collared Lizard

Family: Crotaphytidae Species name: Crotaphytus collaris

Habitat: Found from the desert to Pinyon and Juniper Woodlands

Diet: Omnivore; eats insects, smaller lizards, reptiles, and plants

Predators: Birds, snakes, other lizards, coyote, fox

Fun Facts:

Males brighten seasonally to attract females

- Can run well on their hind legs, sprinting up to 16 mph
- Wave their tail like a cat when stalking prey
- · Can reach a foot long in length

Prefer high temperatures of 105-110 °F when basking (sun-bathing)

Bark Scorpion

Family: Buthidae Species name: Centruroides sculpturatus

Habitat: Riparian areas in the desert

Diet: Carnivore; eats insects

Predators: lizards, snakes, mice, bats

- Nocturnal (active at night)
- Most venomous scorpion in North America
- Young stay on mom's back about 2 weeks before venturing out into the world
- Glow/fluorescence when ultraviolet light is shined on them
- Regularly climb walls, trees, and other rough surfaces
- Not true desert species, prefer riparian (water) areas where moisture and humidity support their prey
- Live 5-6 years





Grand Canyon Pink Rattlesnake

Family: Viperidae Species Name: Crotalus viridis abyssus

Habitat: Found mainly in the desert environment of the inner canyon.

Diet: Carnivore; small mammals, reptiles and birds

Predators: birds, ringtails, weasels

Fun Facts:

- Endemic (found only at one place) to Grand Canyon; in the inner canyon
- This snake is pink to camouflage itself against all of the red rock and dirt in Grand Canyon
- The rattle at the tip of its tail is used as a warning when the snake feels threatened
- Unlike many snakes that lay eggs, rattlesnake mothers keep the eggs inside of her body until they hatch, when the young emerge alive

Humpback Chub

Family: Cyprinidae Species Name: Gila sypha

Habitat: Muddy, swift-moving water of the Colorado River

Diet: *Omnivores;* plant material as well as a variety of invertebrates (bugs), like black flies, beetles, ants, & grasshoppers

Predators: larger fish and some birds

- Humpback chubs can survive more than 30 years in the wild
- Endemic (found only at one place) to the Colorado River and other tributaries that drain into the Colorado
- Adapted (specialized) to living in warm, swift, muddy water, this species is listed as endangered
- The largest known population of chub is in the Little Colorado River in Grand Canyon





Mountain Lion

Family: Felidae Species name: Felis concolor

Habitat: Found throughout desert and forest environments at Grand Canyon

Diet: Carnivore; mainly eat mule deer and bighorn sheep, but will also eat small

mammals, wildfowl, fish, and raccoons

Predators: occasionally humans and other mountain lions

Fun Facts:

- Largest of the cats in the Felidae family
- Most geographically widespread wild cat
- Has over 30 common names (examples: cougar, puma, catamount)
- Male cats can have a length of 8 feet long from nose to tail
- Can not roar, but purrs and chirps
- Has been known to swim across the Colorado River to get from rim to rim
- Capable of a vertical leap of 18 ft and horizontal jump of 20 to 40 ft

Mule Deer

Family: Cervidae Species name: Odocoileus hemionus

Habitat: Found throughout desert and forest environments at Grand Canyon

Diet: Herbivore; browses on shrubs and grazes on grasses

Predators: Humans, mountain lions, bobcats, coyotes

- Called a mule deer because of its large, mule-like ears
- The rut occurs during the fall, when males try to impress females and outcompete other males
- (Solid) antlers, not (hollow) horns, are shed annually, worn only by males
- Excellent sensitivity to moving objects, and exceptional hearing help to escape predators





(Rocky Mountain) Elk

Family: Cervidae Species name: Cervus elaphus

Habitat: Open grassy meadows and forests on the South Rim

Diet: Herbivore; eats grass, shrubs, leaves and bark

Predators: Humans, young are occasionally hunted by mountain lion, bobcat, and coyote

Fun Facts:

- Male has (solid) antlers not (hollow) horns that start growing in the spring and shed each winter
- Antlers are made of bone and can grow at a rate of 1 inch per day
- Rut, during fall, occurs when males compete for females by bugling and grunting
- Are more than twice as heavy as mule deer, weighing about 500 lbs
- Calves are born spotted to help hide (camouflage) them from predators
- Second largest species of deer in the world (moose is larger)

Coyote

Family: Canidae Species name: Canis latrans

Habitat: Has the ability to adapt to a wide range of ecosystems, from the forests to the desert and everything in between

Diet: Omnivore; eats mice, rabbits, ground squirrels, small rodents, insects, fruits and berries of wild plants

Predators: Occasionally wolves and mountain lions

- Known as the trickster, or hero in many Native American myths
- Were once diurnal (awake during the day), but due to human pressure are now mostly nocturnal
- Excellent sense of smell
- Litter size ranges from 1 to 29 pups
- One of the most adaptable animals in the world, lives in every state in North America





Common Porcupine

Family: Erethizontidae or Hystricidae Species name: Erethizon dorsatum

Habitat: Found from the desert to the canyon's forests, common on North and South Rims at Grand Canyon

Diet: Herbivore; eats young plants, grasses, branch shoots, buds, inner bark and outer bark of a tree

Predators: Fishers & other weasel-like critters, occasionally mountain lion and bobcat

Fun Facts:

- Defensive protection in the form of spines and quills
- Sharp spines are actually modified hairs coated with thick plates of keratin (the same thing our fingernails are made of!)
- Quills have microscopic, backwards-facing barbs on the tip that catch on the skin making them difficult and painful to extract
- Their name means: thorny pig
- Porcupines are the third largest of the rodents

Bobcat

Family: Felidae Species name: Felis rufus

Habitat: An incredibly adaptable predator that inhabits wooded areas and the desert, prefers open areas and cliffs

Diet: *Carnivore*; prefers desert cottontails, although it will hunt anything from insects, small rodents to deer and pronghorn antelope

Predators: Occasionally mountain lions and other bobcats, humans also pose a threat

- Called a bobcat due to its "bobbed" tail
- Kittens weigh approximately 4 to 8 ounces and are blind at birth
- · Can claim a territory of up to 25 miles
- Mark their territory with claw marks and deposits of urine or feces
- Crepuscular: generally most active at twilight and dawn
- Each night it will move from 2-7 miles along its habitual route





Kaibab Squirrel

Family: Sciuridae Species Name: Sciurus aberti kaibabensis

Habitat: Only lives on North Rim of Grand Canyon in the Ponderosa Pine forest

Diet: Herbivore; eats seeds, buds, young branch shoots, inner and outer bark, and a fungus that grows on the roots of the Ponderosa Pine tree

Predators: Goshawks, Cooper's hawks, Sharp-Shinned hawks, bobcats

Fun Facts:

- Symbiotic (helpful) relationship with Ponderosa Pine tree and fungus, in which squirrel spreads beneficial fungus to other trees by defecating (poops)
- Called a tassel-eared squirrel due to tufts (or "tassels"-modified hairs increasing sound absorption) on its ears
- Endemic (found only at one place) to North Rim of Grand Canyon
- Builds its nests 50 feet high in inter-locking branches of the Ponderosa Pine

Abert Squirrel

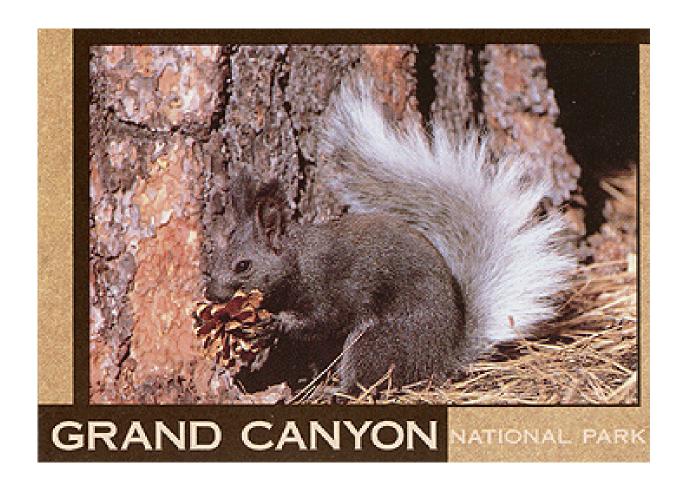
Family: Sciuridae Species Name: Sciurus aberti

Habitat: South Rim of Grand Canyon in the Ponderosa Pine forest

Diet: *Herbivore*; eats seeds, buds, young branch shoots, inner and outer bark, and a fungus that grows on the roots of the Ponderosa Pine tree

Predators: Goshawks, Cooper's hawks, Sharp-Shinned hawks, bobcats

- Symbiotic (helpful) relationship with Ponderosa Pine tree and fungus, in which squirrel spreads beneficial fungus to other trees by defecating (poops)
- Called a tassel-eared squirrel due to tufts (or "tassels"-modified hairs increasing sound absorption) on its ears
- Largest and most common tree squirrel on the South Rim of Grand Canyon
- Builds its nests 50 feet high in inter-locking branches of the Ponderosa Pine





Kaibab Swallowtail

Family: Papilionidae Species Name: Papilio indra kaibabensis

Habitat: Only lives on the North Rim; from conifer forests to more desert-like places

Diet: Herbivore; eats leaves and enjoys plant nectar

Predators: some spiders and birds

Fun Facts:

- Endemic (found only at one place) to North Rim of Grand Canyon
- Population is threatened by people who want to gather them for their private collections

Canyon Tree Frog

Family: Hylidae Species name: Hyla arenicolor

Habitat: Dry, rocky areas near streams or pools, side canyons with perennial (year-round) streams

Diet: Carnivore; eating insects, bugs, spiders and worms

Predators: Carnivorous mammals (bobcats, skunks), birds and snakes

- Its excellent camouflage helps it blend in with rocks to escape predators
- Lay more than 100 eggs at a time that float on the surface of the water
- During periods of low rainfall, the frogs will take refuge (shelter) in rock crevices
- Nocturnal (active at night)





(Desert) Bighorn Sheep

Family: Bovidae Species name: Ovis canadensis

Habitat: Steep, rugged terrain from the canyon's rims to the inner desert

Diet: *Herbivore*; eats grasses, clover, sedges, willow, sage, holly and cactus; seek minerals at natural salt licks

Predators: coyote, eagles, cougars

Fun Facts:

- Has spongy inner hooves with hard outer layer to help climb rocks and cliffs
- During fall males run at each other at about 20 miles per hour in head-butting contests to establish dominance
- Females give birth on cliffs that are difficult for predators to access
- Hollow horns, not (solid) antlers are kept throughout the animal's life, with males having the larger curling horns
- Species very sensitive to many human-induced environmental problems

Humans

Family: Hominidae Species name: Homo sapiens

Habitat: 5 million visitors travel to Grand Canyon each year, humans have been living at Grand Canyon for the past 12,000 years

Diet: *Omnivore;* obtaining food mostly from a grocery store, although original food sources are from farming, ranching, hunting and/or gathering

Predators: Though not true predators, bacteria and viruses "prey" on humans more than other animals

- Special adaptation of a large brain helps humans adjust to their environment as needed
- Good binocular vision but a poor sense of smell
- Modern humans appear in the fossil record in Africa about 130,000 years ago
- We share 95% of the same genetic makeup as the chimpanzee
- First evidence of humans living in the Americas was found in southern Chile dating human habitation back 20-24,000 years ago





Deer Mouse

Family: Cricetidae Species name: Peromyscus maniculatus

Habitat: Found from the desert to the canyon's forests, common on North and South

Rims at Grand Canyon

Diet: Nuts, seeds, small fruits, berries, fungus, small insects, and centipedes

Predators: Omnivore; Practically all predators of reasonable size prey on this species, top predators are small to medium-sized birds of prey (hawks, falcons, eagles), and weasels

Fun Facts:

- Will cache food for winter use, routinely storing seeds and small nuts in hollow logs or other protected areas
- Good climber, highly arboreal (spends large amounts of time in trees)
- Has internal cheek pouches for carrying food
- Don't pet, this species has become notorious in the western U.S. as a carrier of the hantavirus

Turkey Vulture

Family: Cathartidae Species name: Cathartes aura

Habitat: Common from river to rim throughout Grand Canyon

Diet: Scavenger; eats carrion (dead animals)

Predators: Very few natural predators, occasional threats include other scavengers and humans

- Has one of the best senses of smell of any animal on the planet, allowing them to smell carrion from miles away
- Can not sweat so it defecates (poops) on its own legs, using the moisture from the feces to cool off
- More closely related to storks than to raptors
- Often seen standing in a spread-winged stance; drying the wings, warming the body, and baking off bacteria







Desert Cottontail

Family: Leporidae Species name: Sylvilagus audubonii

Habitat: Found from the Pinyon-Juniper woodland to the desert at Grand Canyon

Diet: *Herbivore;* eats grasses, young plants, buds, branch shoots, inner and outer bark of trees

Predators: Bobcats, coyotes, foxes, birds of prey (hawks, falcons, owls)

- Good runner (around 15 mph)
- May thump hind leg when excited
- Called a cottontail due to its cotton-puff looking tail
- Rarely needs to drink, getting most of its water from the plants it eats or from dew
- Re-ingests and chews its own feces; this allows more nutrition to be extracted

